

# CITY OF ATLANTIS

## 2014 WATER QUALITY REPORT

Dear Customers,

We are pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. The City of Atlantis purchases its water from Palm Beach County Utilities, which is treated well water from shallow aquifers.

I'm pleased to report that our drinking water meets federal and state requirements.

The City of Atlantis routinely monitors for contaminants in your drinking water according to Federal and State laws and regulations. Except where indicated otherwise, this report is based on the results of our water monitoring for the period of January 1 to December 31, 2014. The data obtained and presented in this report are from the most recent tests performed in accordance with the established drinking water laws, rules, and regulations.

The City of Atlantis is responsible to test for total Coliform bacteria monthly and Lead and Copper in accordance with 40 CFR 141.Subpart 1. Palm Beach County Utilities System II, the primary supplier, is responsible to monitor for Primary, and Secondary contaminants as required by Federal, and State Laws. This annual report is for the reporting period of January 1, 2014 to December 31, 2014.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- (B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- (C) Pesticides and herbicides, which may come

from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

(D) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

(E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink the EPA prescribes regulations to limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

These charts are designed to inform you about substances that may be found in your tap water. Therefore, the Environmental Protection Agency (EPA) has established standards regulating contaminants. Our utility has never been in violation of the EPA standards.

The charts below show substances that the EPA requires our utility to report, even though we are not in violation of their standard. To determine how we compare to the federal regulation, compare the column that shows the highest level allowed by EPA (MCLs) to the column that shows the level detected at our utility during 2014.

Keep in mind that MCLs are set at very stringent levels. To understand the possible health effects for many regulated substances, a person would have to drink two liters of water every day at the MCL level for

a lifetime to have a one-in-a-million chance of having a health effect.

If you have any questions about this report or concerning your water utility, please contact Steve Mazuk, Atlantis Utilities Department at 965-1744. City of Atlantis, 260 Orange Tree Dr., Atlantis, Florida 33462. This report can also be viewed on the City's website at <http://www.atlantisfl.gov>. Our regularly scheduled council meetings are on the third Wednesday of each month at 7:00 p.m. at the Atlantis Municipal Complex.

Thank you,

Steven Mazuk  
UTILITIES DIRECTOR  
ATLANTIS UTILITIES DEPARTMENT

### Table definitions

Action Level (AL): Concentration of a contaminant that requires treatment

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

MFL: Million fibers per liter (longer than 10 micrometers)

ppb: parts per billion; one part per billion equals approximately one drop in 10,000 gallons

ppm: parts per million; one part per million equals approximately one drop in 10 gallons

pCi/l: picocuries per liter; a measure of radiation matter in drinking water

ND: not detected; indicates that the substance was not found by laboratory analysis

Treatment Techniques (TT) A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

We are in the city monthly collecting samples for microbiological analyses. We are pleased to report that all samples collected were negative.

#### LEAD & COPPER

	AL exceeded Y/N	90th Percentile result	No. of Sampling sites exceeding AL	MCLG	AL (action level)	Date of Sample	Likely Source of Contamination
1. Lead (ppb)	No	14.8	1	0	15 ppb	6/29/2012	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
2. Copper (ppm)	No	.287	0	1.3 ppm	1.3 ppm	6/29/2012	Corrosion of household plumbing systems; erosion of natural deposits

"If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Atlantis Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>."

Initial Distribution System Evaluation (IDSE): An important part of the Stage 2 Disinfection Byproducts Rule (DBPR). The IDSE is a one-time study conducted by water systems to identify distribution system locations with high concentrations of trihalomethanes (THMs) and haloacetic acids (HAAs). Water systems will use results from the IDSE, in conjunction with their Stage 1 DBPR compliance monitoring data, to select compliance monitoring locations for the Stage 2 DBPR.

**DISINFECTION BYPRODUCTS**

	Dates of Sampling	MCL Violation	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of contamination
Total Haloacetic Acids (HAA5)(ppb)	09/05/2014	No	43.4	43.4 ug/l	N/A	60 ug/l	By-product of drinking water water chlorination
Total Trihalomethanes (ppb)	09/05/2014	No	46.3	46.3 ug/l	N/A	80 ug/l	By-product of drinking water water chlorination
Chloramines (ppm)	Daily	No	1.8*	0.6 -3.0	4 ppm	4 ppm	Water additive used to control microbes

\* The results in the column indicating “Level Detected” for chloramines is the running annual average from all sampling sites.

Atlantis receives its water primarily from Palm Beach County Water Utilities System II. They have 14 wells approximately 150 feet underground in the Shallow Aquifer. Palm Beach County operates five water treatment plants. The plants are staffed 24 hours a day by state-licensed water plant operators. The Department is continually upgrading its facilities to utilize the most effective and up-to-date technologies for water treatment, such as state-of-the-art membrane softening, ozonation, lime softening, filtration, and disinfection by chlorination.

**2014 DATA TO REPORT ON CCR**

Radioactive Contaminants						
Contaminant	Unit of Measurement	Dates of Sampling (mo/yr)	MCL Violation	Level Detected	Reported Ranges	MCL
Radium 226	pCi/L	5/14	N	0.849	ND-0.849	5 pCi/L
Inorganic Contaminants						
Contaminant	Unit of Measurement	Dates of Sampling (mo/yr)	MCL Violation	Level Detected	Reported Ranges	MCL
Barium	ppm	5/14	N	0.00592	0.00442 I-0.00592 I	2 ppm
Chromium	ppm	5/14	N	1.98	ND-1.98 I	100 ppb
Fluoride	ppm	5/14	N	0.828	0.175-0.828	4 ppm
Nitrate, as Nitrogen	ppm	5/14	N	0.05	ND-0.05	10 ppm
Nitrite, as Nitrogen	ppm	5/14	N	0.06	0.04 I-0.06	1 ppm
Nitrate + Nitrite	ppm	5/14	N	0.04	ND-0.04 I	10 ppm
Sodium	ppm	5/14	N	56.1	17.9-56.1	160 ppm
Stage 1 Disinfectants and Disinfection By-Products						
Contaminant	Unit of Measurement	Dates of Sampling (mo/yr)	MCL Violation	Level Detected*	Reported Ranges	MCL
Chlorine and Chloramines	ppm	1/14 to 12/14	N	3.11	0.02-5.20 <sup>(1)</sup>	4 ppm
Stage 2 Disinfectants and Disinfection By-Products						
Contaminant	Unit of Measurement	Dates of Sampling (mo/yr)	MCL Violation	Level Detected**	Reported Ranges	MCL
TTHM (Total Trihalomethanes)	ppb	1/14 to 12/14	N	73.5	16.2-121.0 <sup>(2)</sup>	80 ppb
Haloacetic Acids (HAA5)	ppb	1/14 to 12/14	N	50.0	8.60-62.80	60 ppb
Lead & Copper (Tap Water)						
Contaminant	Unit of Measurement	Dates of Sampling (mo/yr)	AL Exceeded	90th Percentile Result	Number of Sampling Sites exceeding AL	Action Level (AL)
Lead at the Tap	ppb	8/14	N	2.97 ppb	3	15ppb
Copper at the Tap	ppm	8/14	N	0.217 ppm	0	1.3 ppm

### Unregulated Contaminants

Palm Beach County Water Utilities Department has been monitoring for unregulated contaminants (UCs) as part of a study to help the U.S. Environmental Protection Agency (EPA) determine the occurrence in drinking water of UCs and whether or not these contaminants need to be regulated. At present, no health standards (for example, maximum contaminant levels) have been established for UCs. However, we are required to publish the analytical results of our UC monitoring in our annual water quality report. If you would like more information on the EPA's Unregulated Contaminants Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

Contaminant	Unit of Measurement	Dates of Sampling (mo/yr)	Level Detected	Reported Ranges	
Chromium	ug/L	9/14	0.53	0.21-0.96	
Molybdenum	ug/L	9/14	0.73	ND-1.4	
Strontium	ug/L	9/14	415	190-780	
Vanadium	ug/L	9/14	0.30	ND-0.70	
Hexavalent Chromium	ug/L	9/14	0.10	0.036-0.19	
Chlorate	ug/L	9/14	593.75	320-720	
1,4-dioxane	ug/L	9/14	0.07	ND-0.16	
chlorodifluoromethane	ug/L	9/14	0.11	ND-0.31	
chloromethane	ug/L	9/14	0.15	ND-0.29	

#### Qualifier Codes

U = Undetected

I = Between lab detection limit and lab practical quantitation limit

J = Estimated Value

#### Notes:

<sup>(1)</sup> The highest level detected for chloramine represents 1 out of 8305 samples.

<sup>(2)</sup> The highest level detected for Stage 2 Total Trihalomethanes represents 1 out of 81 samples.

\*The results in the column indicating "Highest Level Detected" for Chlorine and Chloramines are the highest running annual average (RAA), computed quarterly, of monthly averages of all samples collected. The range of results is the range of results of all the individual samples collected during the past year.

\*\*The results in the column indicating "Highest Level Detected" for total trihalomethanes and HAA5 are the highest running annual average (RAA), computed quarterly, of quarterly averages of all samples collected. The range of results are the range of individual sample results (lowest to highest) for all monitoring locations.